Work Orde	er ID 9905' 0:49:25 AM	7		*90	705	57*				Page 1				
tem ID: Revision ID: tem Name:	647.1713 Spacer	-	10 fr	Accept		*N900	<b>040</b>	100	<b>)*</b> s	etup Star Stop	1 4	S1* S2*		
	3/27/13 Si 3/27/13 R	tart Qty: 4,60, eq'd Qty: 4,60	*4* *4*			Cust Item II Customer:	D:							
Approvals:		μισ				Da			. R	tun Star Stop		R1* R2*		
Sequence ID/ Work Center II		peration escription		Set Up/ Run Hou	rs	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp		
Draw Nbr	Revisio	on Nbr												
647.1700	N/C		<del> </del>		·									
*110 *110* Hardinge Hardinge CNC Lath	ne Small	Memo Turn as per	· dwg	0.00	Po	13/04/08	3		20	_Ø				
120	Q	2-Deburr if	•	0.00										
*120* QC Quality Control		Memo		0.00	10	13/04/08			_20_	Ø	r something of the second of			
*130	Q	C8- Inspect parts - sec	cond check	0.00		13.4.	8		20	4		04 94		
QC		Memo		0.00			•				/			

Quality Control

NCR: Y	es / N	o			WORK ORDER NON-C	ON	FORI	MANCE / UPDATI				
										QA Closed:	Date	e:
Work Orde	er:				DISPOSITION	,			GAINST DEI	PARTMENT	_	
Part N					Rework Scrap Use-as-is Work Order Update		I Thern	Machining Sn noforming F	osstube mall Fab inishing mposite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	In	itial	Action		Sign &		
Cause	Dat	e Step	Qty		or Non-conformance	Chie	ef Eng	Description	n	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling				İ								
Operator									j			
Material					•							
Setup												
Other			1			1						
Process	Ц	ļ										
Supplier	$\square$			1							-	
Training	Ш	ŀ										
Unapproved		l			· .	<u> </u>						
						AULI	CATE	GORY				
Landi	ng Gear				<b>General</b> Bend		Grain			Ovalized	Г	Pressure/Forced
	Bendi	ng e Not Conce		O/S	BOM/Route	$\vdash$	aranı Hardwa		<b>—</b>	Over/Under	toloranco	Temperature/Cure
	Crack		intric to	<sup>0/3</sup>  -	Broken/Damaged	$\mathbf{H}$		ion Incomplete	<u> </u>	Part Incorred	F	Weld
	—	s ed/Crimped	ŀ	-	Burrs	-	-	ions Incomplete/Unclea		Part Lost/Mi	-	Wrong Stock Pulled
	Cuffs	eu/cimpec	!		Contamination	-		enance	<b>—</b>	Part Moved	33116 L	
	Heat	Treat		-	Countersink	$\vdash$	Mislabe	,	1	Positioned V	Vrong	
	<del></del>	ction Strip i	n Tube		Cut Too Short	$\vdash$	Misread			Power Loss/		Other
,	<b>⊢</b> — `	es in Bend			Drill Holes	$\mathbf{H}$	Offset	-			<u> </u>	1
	<b>—</b>	e Waves in	Extrusio	n	Drawing	$\mathbf{H}$		Calibration	•			
-	<b>⊢</b>	ng Sequence			Finish	$\vdash$		Sequence	•	<u> </u>		

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Folio

Work Orde March-28-13 10		0057		*990!	57*						Page 2
Item ID: Revision ID: Item Name:	647.1713 Spacer		t - 1 1	Accept	*N900	<u>040</u>	100	* S	etup Start Stop	*NS	1* 2*
Start Date: Required Date: Reference:	3/27/13 3/27/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item II Customer:	<b>)</b> :					
Approvals:		an:	Date:	Tooling: SPC (Y/N):	Da Da			R	un Start Stop	*NR *NR	1* 2*
Sequence ID/ Work Center II 160 *160* Outsource4 Outsource process -		Operation Description Outsource process-Anodo  Memo ISSUE P/O: HARD ANO	19634	Set Up/ Run Hours 0.00 0.00 AS PER DWG.(SEE NOTE	Tool ID	Tool#		Accept Qty		Number S	nsp. tamp
*170* Packaging Packaging		Receive & Inspect for Da  Memo	amage & Mat'l Certs	0.00			-		14	) 3/5/13	3 (2e
180		QC5- Inspect part compl	eteness to step on W/O	0.00	•		·	<b>X</b>			

0.00 BS B

Memo

Quality Control

									DQA:	Date:			
NCR:	Yes / No				WORK ORDER NON-	CONFO	RMANCE / UP	DATE	QA Closed:	Date:	:		
Work Ord	er:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS			
Part I	No				Rework Scrap Use-as-is Work Order Update	The	Skid-tube Machining ermoforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root				Descri	iption of work order update	Initial	Ac	tion	Sign &				
Cause	Date	Step	Qty	,	or Non-conformance	Chief E	ng Desc	cription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
					F	AULT CA	TEGORY						
Landi	Landing Gear  Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube				General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	n ware ection Incomplete uctions Incomplete/ ntenance abeled ead et of Calibration of Sequence	'Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other			
Wave/Twist in Tube Folio							Outside Dimensions						

Work Orde				*990	)57*					a	Page 3
Item ID: Revision ID: Item Name:	647.1713 Spacer			Accept	*N900	<u>040</u>	100	)*	Setup Sta	I A	S1* S2*
Start Date: Required Date: Reference:	3/27/13 3/27/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	ID:			- St		
Approvals:	Process P	lan:	Date:	Tooling:	D:	ate:	_			art *N	R1*
				SPC (Y/N):	D	ate:			St	<sup>ор</sup> *N	R2*
Sequence ID/ Work Center II	<b>D</b>	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*100* SprayPaint		. Memo		0.00				20	Ø		Af 13-6-1
Spray Painting			V MIL-P-23377J TYPE1 _ 4860-50 PRIMER BAT	CLASS N AS PER DWG. CH: <b>12<i>5452</i></b>	(SEE NOTE 3)						,
200		QC14- Inspect Spray Pa	int	0.00							
*200* QC Quality Control		Memo		16 J	164(cu		(	120)	)		

210

Identify as per dwg & Stock Location: 57543 0.00

\*210\*
Packaging

Memo

0.00

Packaging

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV\*\*\*

ı										DQA:	Date	· · ·	
NCR	: Y	es / No				WORK ORDER NON-C	CONFOR	MANCE / UP	DATE	QA Closed:	Date		
+						DICTOCITION			ACAINST D	EPARTMENT		•	
Work	Orde	ŕ:				DISPOSITION			AGAINST D	EPARTIVIENT	/PROCESS		
ł						Rework	]	Skid-tube	Crosstube		Water Jet	Engineering	
1	Part N	o				Scrap	4 I	Machining	Small Fab	<b></b> 1	d. Eng. Coor.	Quality	
j						Use-as-is	Therr	moforming	Finishing	Rec/Sto	re/Packaging	Other	
	NCR N	io				Work Order Update	]	Large Fab	Composite	_	Supplier		
Ro	ot				Descri	iption of work order update	Initial	Ac	tion	Sign &			
Cau	ise	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Da	ata												
Equip/T	ooling	_		1							:		
Operat	or	_											
Materia	al	_											
Setup	ļ												
Other													
Process	s												
Supplie	er	_											
Trainin	g						}						
Unappr	oved		<u> </u>	<u> </u>	<u> </u>								
<del> </del>							AULT CATE						
	Landir 1	ng Gear			_	General		<b>]</b> ?	_	٦	<del>-</del>	7	
	Bending Bend Grain Ovalize  Centre Not Concentric to O/S BOM/Route Hardware Over/				Pressure/Forced								
1	-	<b>-</b>	lot Conce	ntric to	<sup>0/S</sup>  -	BOM/Route	Hardwa		<u> </u>	Over/Under	<del>-</del>	Temperature/Cure Weld	
İ		Cracks			<u> </u>	Broken/Damaged	<b>—</b>	ion Incomplete		Part Incorre	<del>-</del>	<b>⊣</b>	
			/Crimped		-	Burrs		tions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled	
		Cuffs			<u> </u>	Contamination	<del></del>	enance		Part Moved	<b>1</b> /2-2-		
		Heat Tre		. T. da a	-	Countersink	Mislab		-	Positioned V Power Loss/		Other	
	Inspection Strip in Tube Ripples in Bend				-	Cut Too Short Drill Holes	Misrea Offset	u	L	rower Loss/	Juige	Totalei	
		<del>_</del> ''		Evtroci-	_	<b>-</b>	<del></del>	Calibration					
Torque Waves in Extrusion Drawing  Turning Sequence Finish							$\vdash$	Sequence					
			Sequence		-	Finish	Outside Dimensions						

Work Ord March-28-13		0057		*990	7.57* *N900040100* Setup Start *N.S	Page	e 4						
Item ID: Revision ID:	647.1713			Accept	*N900	040	100	)*	Setup	•			
Item Name:	Spacer									Stop	*N:	S2*	
Start Date:	3/27/13	Start Qty: 4.00	*4*		Cust Item I	D:							
Required Date	: 3/27/13	Req'd Qty: 4.00	*4*		Customer:								
Reference:	•		· <del>-</del>				٠						
Approvals:	Process Pl	an:	Date:	Tooling:	Da	ate:		]	Run	Start	*N	R1*	<i>:</i>
	QC:		Date:	SPC (Y/N):	Da	ate:				Stop	*N	R2*	ŕ
Sequence ID/ Work Center 1	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Re <sub>z</sub> Qt	-	Reject Number	Insp. Stamp	
220		QC21- Final Inspection	Work Order Release	0.00					,	. 1.	1	$\mathcal{A}$	
* <b>??</b> 00*		Memo		0.00					12	314	2/10	4	-

Quality Control

V 13-04-7

- [											DQA:	Date	:	•
NCR	t: Y	es / No				WORK ORDER NON-	CON	FORM	MANCE / UPE	DATE	QA Closed:	Date	:	
Worl	k Orde	r:				DISPOSITION			· · · · · · · · · · · · · · · · · · ·	AGAINST D	EPARTMENT	/PROCESS		
	Part N	o				Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	<b>-1</b>	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Ro	ot				Descri	ption of work order update	In	itial	Acti	ion	Sign &			
Cau	use	Date	Step	Qty		or Non-conformance	Chi	ef Eng	Descr	iption	Date	Verification	QC Inspector	
1	Tooling													
Operat Materi	- H	-					1							
Setup		-					İ		<b>.</b>		·			
Other	·													
Proces	is											•		
Supplie	er [						1				,			
Trainir	ng L													
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ĺ	Landin	g Gear	*			General		C!		_	Ovalized	Г	Pressure/Forced	
ĺ		Bending	-+ 6		\_ -	Bend BOM/Route	-	Grain Hardwa		-	Over/Under	taloranco	Temperature/Cure	
	}	Centre No	ot conce	ntric to t	) <sup>3</sup>  -	Broken/Damaged	-		on Incomplete	$\vdash$	Part Incorred	<u> </u>	Weld	
1	ŀ	Crushed/	Crimned			Burrs	<b>—</b>		ions Incomplete/U	Inclear –	Part Lost/Mi	<b>⊢</b>	Wrong Stock Pulle	d
1	ŀ	Cuffs	crimped			Contamination	_	Mainte			Part Moved			-
	İ	Heat Trea	at			Countersink	-	Mislabe			Positioned V	<b>Vrong</b>		
	Ì	Inspectio		Tube		Cut Too Short	$\square$	Misread	I		Power Loss/	_	Other	
	ľ	Ripples in	Bend			Drill Holes		Offset						
		Torque W	/aves in E	Extrusion	n [	Drawing		Out of C	Calibration					
		Turning S	equence			Finish		Out of S	Sequence					
	ſ	Wave/Tw	ist in Tul	be		Folio	$\Box$	Outside	Dimensions					

**Picklist Print** 

March-28-13 10:49:25 AM

Work Order ID:

99057

Parent Item:

647.1713

Parent Item Name:

Spacer

**Start Date:** 3/27/13

Required Date: 3/27/13

Page 1

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP REV:A 12.10.04 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R1.250 6061-T6 Round Bar 1.250		Purchased	No	<b>b</b> ,			f	22.4610		0.0842105		0 (3	10410
				<b>Location</b>		Loc Qty	<u>Lo</u>	c Code					
				MAT013		22.461							
				11345	57	2.16							
				11355	50	8.301							
				12348	33	12				750			

											DQA:	Date:	•
N	CR: Y	es / No				WORK ORDER NON-O	CON	IFORM	MANCE / UPDA <sup>-</sup>	TE	QA Closed:	Date:	
we	ork Orde	r:			-	DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
	Part N					Rework Scrap Use-as-is Work Order Update		f Therm	Machining Solution Sol	Crosstube  Small Fab  Finishing omposite	1	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
İ	Root				Descri	ption of work order update	lr	nitial	Action		Sign &		
C	ause`	Date	Step	Qty	(	or Non-conformance	Chi	ief Eng	Descripti	on	Date	Verification	QC Inspector
Ooc/	/Data												
quip	o/Tooling												
Opei	rator	_	1										
Mate	erial												
Setu	`  -	4						ļ					
Othe	- F		1										
Proc	F	_											
1	olier	-											
1	ning			ŀ		•							
Jņar	proved		.L				ΔΙΙΙ΄	T CATE	GORY		<u> </u>		
t	Landin	ig Gear				General							
	[	Bending				Bend		Grain			Ovalized		Pressure/Forced
	ļ	Centre No	ot Conce	ntric to	o/s	BOM/Route	П	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Ī	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorrec	t 🗌	Weld
	[	Crushed/	'Crimped			Burrs		Instruct	ions Incomplete/Uncle	ear	Part Lost/Mis	ssing	Wrong Stock Pulled
	[	Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	at			Countersink	Ш	Mislabe	led		Positioned W	rong	_
		Inspectio		Tube		Cut Too Short	1	Misread	l		Power Loss/S	Surge	Other
		Ripples in				Drill Holes	$\boldsymbol{\vdash}$	Offset					
		Torque W			n L	Drawing	-		Calibration				
		Turning S	•		L	Finish	$\vdash$		equence				
		Wave/Tw	vist in Tul	be		Folio	1 1	Outside	Dimensions				•

•	ENGINEERING CHANGE NOTIC NO. 02937	SHEET . OF 1
APICAL	DWG NO. 647.1700 REV: NC PREPARED JACKSON DO	ATE: 07/14/10   EFFECT ON DWG
INDUSTRIES, INC.	DWG TITLE: SKID DEFLECTOR ASSY	10
TRANSACTION CODES (TC):	APPROVED BY: ENGR GOLAULE	Pegur EFF: CURRENT DRDER
A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED F/N 8 AND NOTE 3. ADDED INSPECTION I	DIMENSIONS TO DRAWING VIEWS.
SHEET 1, ZONE AL I		EET 2, (4.15)
EINISH: HARD AND PRETREAT PRO-DE RRIME IAW MIL-P	ZDI DIZE IAW MIL-A-8625 TYPE III CLASS 2 COLOR BLACK; ISOTO PR-148 ADHESION PROMOTER, COLOR BLUE; -23377J TYPE I CLASS N	NE A1 IS:
		A
	6 90 o 5 2 M T	
	13-04-02	
		A
		7.85 REF
		57
8 R 601.1622 F/N TC PART NUMBER	1 SCREW	MS27039-1-14 /
DOCUMENTS EFFECTED:	QTY   DESCRIPTION	MATERIAL/SPECIFICATION
Corcb	☐ MDL ☐ INSTALL INSTRUC ☐ FMS ☐ ICA Ø BDM ☐ MAJOR Ø MIN	RY DER REVIEW REQUIRED

A MATERIAL: 7075-16 ALUMINUM PER AMS-QQ-A-250/12



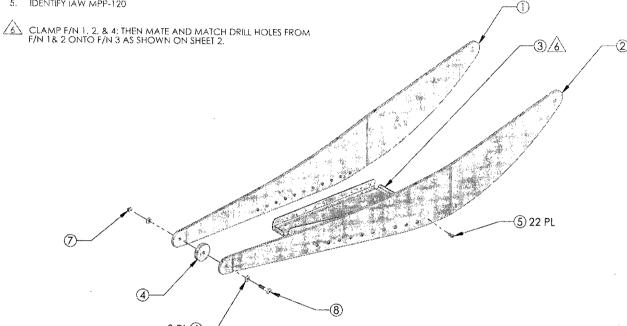
MATERIAL: 6061-T6 ALUMINUM BAR IAW AMS-QQ-A-250/11



FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2. COLOR BLACK: CARDINAL 4860-50 PRETREATMENT PRIMER: PRIME IAW MIL-P-23377J TYPE I CLASS N

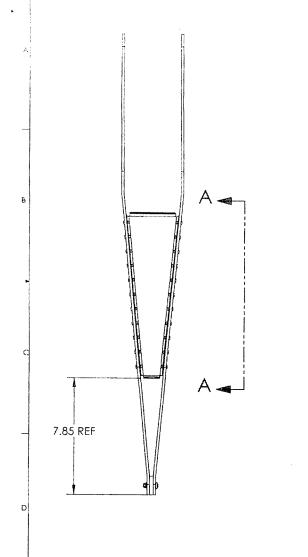
4. DEBURR AND BREAK ALL SHARP EDGES

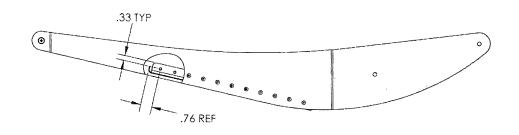
5. IDENTIFY IAW MPP-120



## UNINCORPORATED ECN(s)

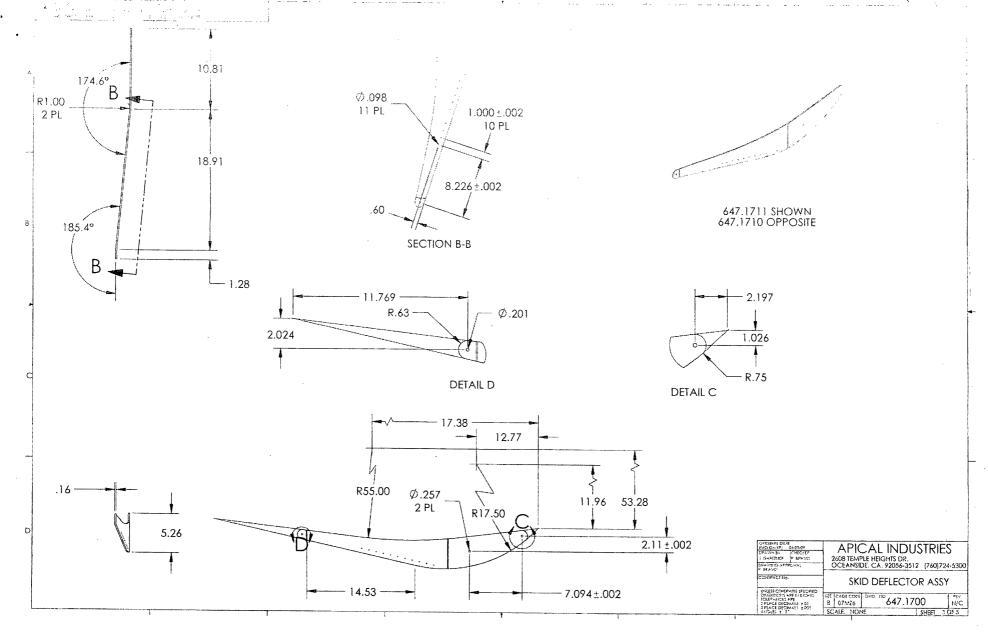
	1	8	601.2637	50	CREW	r/4\$27039-1-13	
	1	7	601.2943	LC	OCKNUT	14521042-3	
	2	6	601.1607	W	ASHER	NAS1149F0332P	
	22	5	601.1915	RI	VET	C£3213-4-4	,
	j.	4	647.1713	SF	PACER	Δ	Δ
	1	3	647.1712	Ğ	USSET	Δ	Δ
	1	2	647.1713	Pl	ATE		Δ
	1	1	647.1710	PI	ATF		A
	><		647.1701	Sŧ	CID DEFLECTOR ASSY		
	.1701	FIND #	PART#		DESCRIPTION	MAT'L	SPEC.
ଦ୍ରୀ	ΓY			*****	PARTS LIST		· · · · · · · · · · · · · · · · · · ·
	XT ASSY ( 647.1300	S) EMA 1 Co	SENAL DATE  WHITE CENOUS  WHITE CHOCKES  WHITE PROVIDE  WHITE APPROVAL  AND	<u> </u>	APICAL II 2608 TEMPLE HEIGH OCEANSIDE, CA. 92	IS DR.	
			ESS OFFERWALE SPECIFIE		SKID DEFL	ECTOR AS	SY
	······································	10t	PARCES PER POPE PARCES PER POCHES PARCES ARE LACE DECREASES ± 01 LACE DECREASES ± 000		B DAME ONE HO	47.1700	N/C

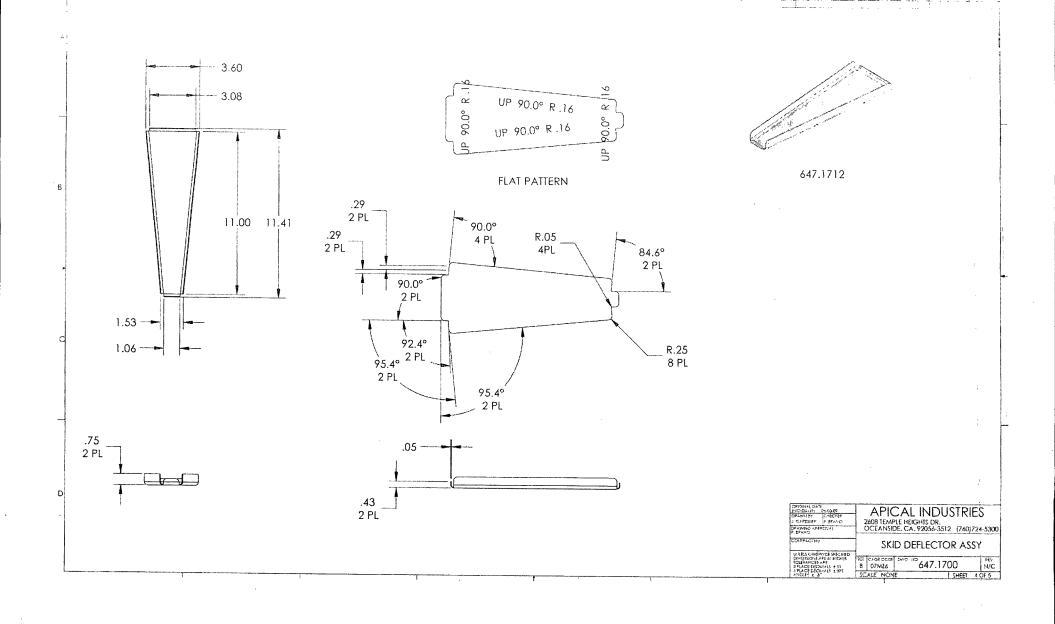


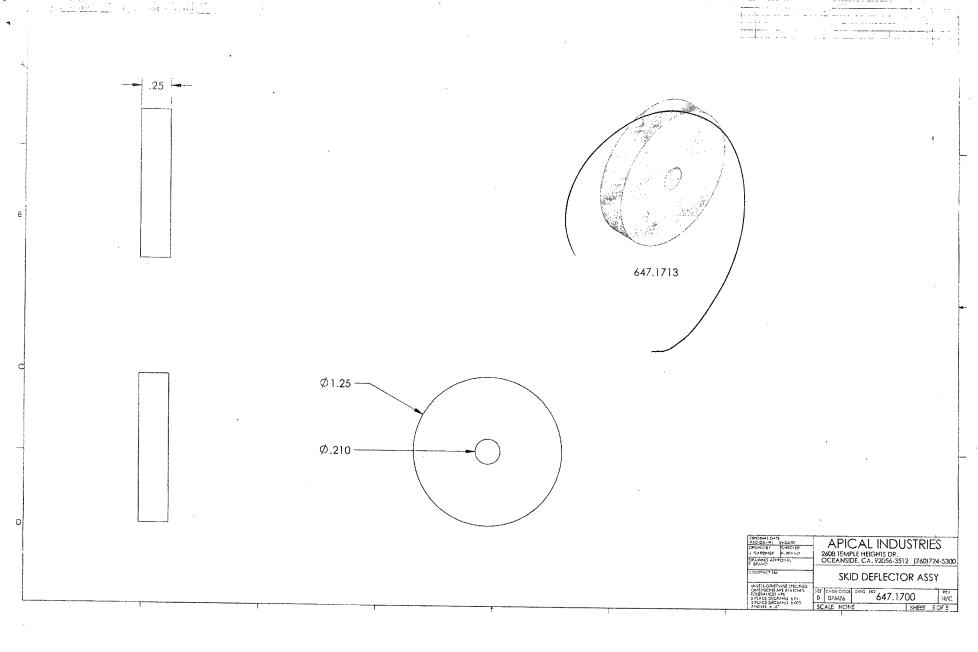


SECTION A-A

DERMENAL DATE	APICAL INDUSTRIES			
DRAWN BY CHECKER L GARGNER P. BEAVO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-530			
DRAWING APPROVAL P BRAVO				
CONTRACTING	SKID DEFLECTOR ASSY			
UNIESS OTHERWISE SPECKED DWENGONS ARE IN HICKES TOLEPANCES ARE	SIT CAGE COME DAG. NO 647 1700			







DART AEROSPACE LTD	Work Order:	99057	
Description: SPAC6P	Part Number:	647, 1713	
Inspection Dwg: 647.1700 Rev: N/C		Page 1 of 1	

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.25	7.01	. 252	V		VERN	940-a
0.125 Ø.125	1.01	1.249	V	·	11	4.
0.210	† .01 + 0.005 - 0.001	.209	V		PiN 6	
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			·			
		. <del> 1 1.) - 1 </del>		·	! - Daniel a a va a quad di Antagania anno angle	
				Tables de la Jacob	· · · · · · · · · · · · · · · · · · ·	
					·	
<u> </u>	<del></del>					
- A						

Measured by:	PO	Audited by:	04	Preliminary Approval:	
Date:	13/04/08	Date:	13.4.8	Date:	

Rev	Date	Change		1	Revised by	Approved
E	10.04.14	Added preliminary	approval		KJ	

4.

.146



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

## Pack List

Number: 62363

Date: 06-May-13

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

b: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

rms		Ship Via		
Quantity	Description			
. 1	Part: ASST	,	Rev:	
lot	11 PCS 646.9710 3 PCS 647.1915 19 PCS 646.3715			
	20 PCS 647.1713 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2	. —		· .
	2 PCS D4410-041 BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2			; ;
	Job: 20130267	PO: 19638	Line:	
	A.T.G. Industries certifies that all item with all requirements, specifications at ISO 9001 : 2008 RI ATG SALES-2010 DATE : 6/5/3  CERTIFIED SIGNATURE : RECEIVER SIGNATURE :	nd drawings referenced EGISTERED	in the purchase order.	

9:7<u>2</u>

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